

# Towed Glider Air Launch System (TGALS) Project

Game Changing Development Program | Space Technology Mission

Directorate (STMD)



## ANTICIPATED BENEFITS

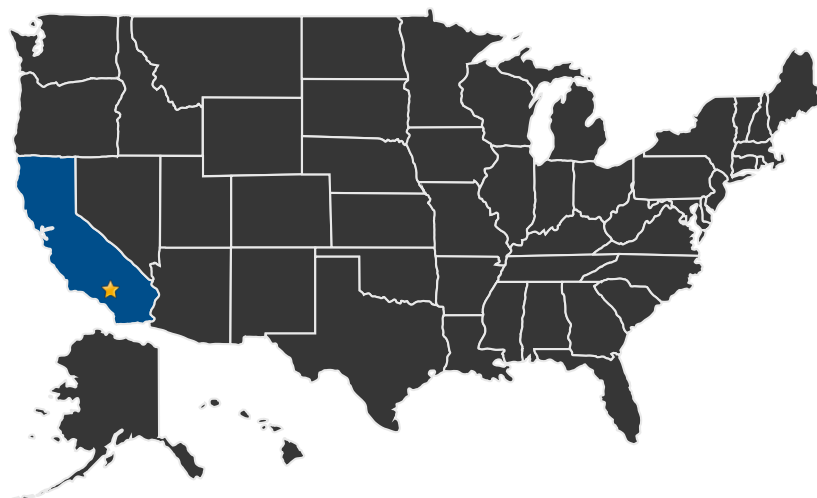
### To NASA funded missions:

The Towed Glider Air-Launch System technology can increase the efficiency, in both time and cost, of small satellite launch and can provide a heavy lift capability for atmospheric flight test.

## DETAILED DESCRIPTION

Investigating an alternative approach to direct-carry air-launch . . . utilizing a one-third scale, twin fuselage glider to demonstrate proof-of-concept performance and operation. Seeking to show that a towed launch platform can carry a launch vehicle of 1 to 2 times its own weight, whereas the current state-of-the-art for direct-carry is roughly 0.7.

## U.S. WORK LOCATIONS AND KEY PARTNERS



■ U.S. States  
With Work

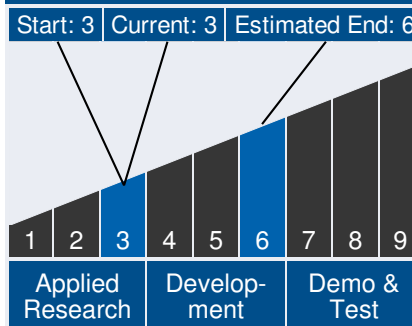
★ **Lead Center:**  
Armstrong Flight Research Center



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### Technology Maturity



### Management Team

#### Program Executive:

- Lanetra Tate

#### Program Manager:

- Mary Wusk

#### Project Manager:

- Chris Miller

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## Other Organizations Performing Work:

- Human Exploration and Operations Mission Directorate
- Science Mission Directorate

## Technology Areas

### Primary Technology Area:

Launch Propulsion Systems (TA 1)

- └ Unconventional and Other Propulsion Systems (TA 1.5)
  - └ Air Launch and Drop Systems (TA 1.5.2)
    - └ Towed Glider Air Launch System (TA 1.5.2.1)

### Secondary Technology Area:

Communications, Navigation, and Orbital Debris Tracking and Characterization Systems (TA 5)

### Additional Technology Areas:

Ground and Launch Systems (TA 13)

- └ Reliability and Maintainability (TA 13.3)
  - └ Launch Infrastructure (TA 13.3.1)

Aeronautics (TA 15)

## DETAILS FOR TECHNOLOGY 1

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